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DEPARTMENT OF THE AIR FORCE
Aerospace Basic Course (AETC)
Maxwell Air Force Base, Alabama 36112

LESSON PLAN

A1250, AIR FORCE EMPLOYMENT EXERCISE (AFEX)

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RECORD OF CHANGES

CHANGE NUMBER	REMARKS
New Lesson	Supercedes ABC lesson 1250 dated 27 Aug 01

SUMMARY OF CHANGES

EDUCATIONAL GOALS

A1000 Area Objective: Apply aerospace power capabilities and officership principles to warfighting.

A1200 Phase Objective: Comprehend how the proper employment of aerospace systems enhances warfighting.

A1250 – AIR FORCE EMPLOYMENT EXERCISE (AFEX)

Criterion Objective:

GIVEN:	PERFORMANCE:	STANDARDS:
<ul style="list-style-type: none">- Computers loaded with the AFEX Toolbook- A set of rules governing AFEX	<ul style="list-style-type: none">- Work as a team to develop a strategy- Work as a team to execute AFEX	<ul style="list-style-type: none">- Complete AFEX and participate in a discussion based on the AFEX Checklist

Lesson Description: Air Force Employment Exercise is a toolbook-based exercise, which gives you the opportunity to try your hand at employing air forces against a formidable opponent. You will use your flight's previously completed strategy to achieve your objectives while simultaneously protecting your own forces.

Prerequisites: A1210 *Air and Space Systems and Capabilities*
A1220 *Air and Space Power Functions*
A1230 *Force Packaging*
Air and Space Integration
A1240 *Intro to AFEX*

Preparation: Review *AFDD 1*, pgs 11 thru 27 and pgs 45 thru 60
Review the Air Force Employment Exercise Toolbook
Prepare your strategy for the flight room exercise
Have your first package planned for Turn #1 and ready to input

Optional: N/A

Rationale/Linkage: Air Force Employment Exercise is a toolbox-based exercise that pits two flights against one another in an aerospace power employment scenario. It provides an opportunity to apply the concepts covered to date. It will provide them the opportunity to try different strategies and determine which are effective.

INSTRUCTIONAL PLAN

1. **TITLE AND LENGTH OF SEMINAR:** AIR FORCE EMPLOYMENT EXERCISE (AFEX) (3:00)
2. **RELATION TO OTHER INSTRUCTION:** This lesson is one of the first opportunities for the students to begin combining concepts that have been introduced so far. After reviewing our current capabilities in *Airpower Systems and Capabilities* (A1210) and *Air and Space Functions and Missions* (A1220) *Force Packaging* (A1230), students should be able to apply these concepts by planning operations using the AFEX Toolbook.
3. **GENERAL METHOD OF INSTRUCTION:**

a. **Presentation Method:** Exercise

b. **Time Outline:**

Segment Time	Total Time	Description
0:05	(0:05)	Introduction
2:30	(2:35)	MP I: Execution
0:05	(2:40)	Break
0:15	(2:55)	MP II: Guided Discussion
0:05	(3:00)	Conclusion

c. **Instructor Preparation:**

- Review the lesson plan and obtain the AFEX Flight Pairings from the Sq DO
- Review the AFEX Toolbook
- Set up room in accordance with diagram on page A1250-P-2
- Prepare 20 copies of A1240-HO3 (five copies on each team's table)
- Ensure the printer is turned on before you start
- Double click on the AFEX icon on the Windows Desktop and load "ABC AFEX 2002.tbk"
- Review A1250-A-1

d. **Instructional Aids/Handouts:**

- ABC AFEX 2002.tbk
- A1250-A-1 AFEX Checklist
- 20 copies of A1240-HO3 "AFEX Mission Planning Worksheet"

e. Student Preparation:

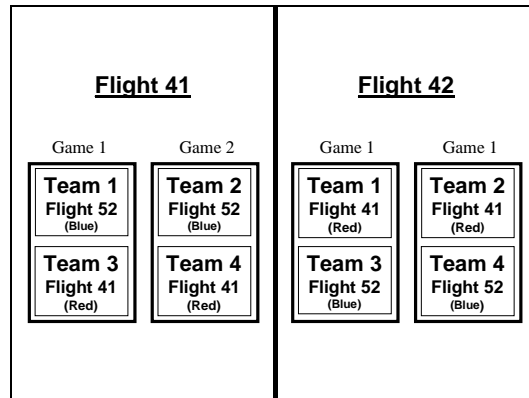
- Review *AFDD 1*, pgs 11 thru 27 and pgs 45 thru 60
- Review the Air Force Employment Exercise Toolbook
- Prepare your strategy for the flight room exercise
- Have your first package planned for Turn #1 and ready to input

f. Strategy: This lesson is part two of the AFEX block. In the *Introduction to AFEX* lesson, students learned the objective of the exercise and how to navigate around the toolbook. Now they should have prepared a plan to effectively defeat their opponent. This is their opportunity to execute their plan. It is very important to follow the sequence of events outlined in this instructional plan to ensure the exercise commences quickly. Pay particular attention to the time allotted for mission planning and input. After the exercise there is a 5-minute break followed by a 15-minute guided discussion.

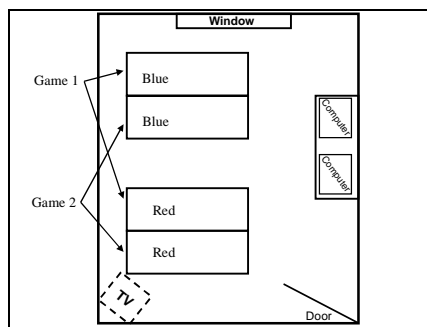
Each flight room will have two games running during the exercise. Even numbered flights will play as Blue, while odd numbered flights will play as Red. Divide the flight into four separate teams, Teams 1 - 4. For example, Flight 41 is divided into Teams 1 - 4, all playing as Red. Flight 52 is divided in the same manner, with each team playing as Blue. Teams 1 and 2 from each flight will compete against Teams 3 and 4 from another flight

In the example below, Flights 41 and 52 are going to play against each other. Teams 1 and 2 from Flight 41 will go to Flight 52's room. Similarly, Flight 52's Teams 1 and 2 will go to Flight 41's room. In each room Team 1 and Team 3 represent Game 1, Team 2 and Team 4 represent Game 2.

Example:



Each room should be divided so that half of the flight room is for Blue and the other half is for Red. The result will be as follows:



g. References:

N/A

4. DETAILS OF INSTRUCTION:

{Instructor Note: Have the toolbox loaded on the computer before class begins by double clicking on the AFEX icon located on Windows desktop.

Place five copies of handout A1240-HO3-1 thru A1240-HO3-2, AFEX Mission Planning Worksheet, on each team's table.

The students will begin class in the flightroom where they will play the game.}

a. Introduction: 0:05 (0:05)

1) //Attention//

How did you feel right before your birthday, after having a restricted driver's license for almost a year? Probably like you were ready to be turned loose and tackle the roads on your own.

2) //Motivation//

The same should hold true for all of the lessons revolving around aerospace power. I'm sure by now you're ready to put some of this knowledge to use, right? Today's your chance! As we discussed earlier, you will schedule airpower packages and manage a mini air operation.

You should have created a plan to defeat your opponent. Although you have planned and developed objectives and strategies, you must remember your opponent has done the same. Your plan must be modified as you progress through the exercise. Flexibility is the key to airpower!

3) //Overview//

Now we'll start playing AFEX. Don't forget to keep the final report and return it to your flight commander so they can add up your flight's score. When we're done we'll take a short break and then discuss some of the highlights from the game.

(TRANSITION): NOW THAT YOU KNOW THE AGENDA, LET'S GET STARTED. GOOD LUCK!

b. MP I: Execution: 2:30 (2:35)

{Instructor Note: *Once you begin the exercise, both Blue teams will be the first to input their mission data into the computers. Teams will not watch over each other when typing in their plan, they must remain separated--see page P-2 for a general room setup plan. While Blue is on the computer, Red will remain at their table finalizing their plan.*

When Red's teams are up, Blue will go to their table and discuss their next move. Eventually, students will have to continuously modify their plan as they interpret the results of the damage inflicted by the opposite team.

Use the following timeline to keep the exercise progressing and ensure that each side receives the same amount of time to plan and input data. It may be useful to write this on the white board for the students to see. Also, a stopwatch or alarm clock may help keep track of the time.

Turn #1 Input	15 Min	Blue
	15 Min	Red
Run Program (Flt/CC)		
Mission Planning	15	
Turn #2 Input	10 Min	Red
	10 Min	Blue
Run Program (Flt/CC)		
Mission Planning	10	
Turn #3 Input	10 Min	Blue
	10 Min	Red
Run Program (Flt/CC)		
Mission Planning	10	
Turn #4 Input	10 Min	Red
	10 Min	Blue
Run Program (Flt/CC)		
Mission Planning	10	
Continue as necessary		

** If a team is ready before their allotted Mission Planning time has expired, they can begin entering their information early. However, a team will*

always have the maximum time listed on the table if they need it.}

{Instructor Note: *At start time +2:30 hours, terminate the exercise. If the students are in the middle the input phase, finish the input phase and run the turn (that is the last turn). If the students are in the planning phase, simply end the exercise at that point; do not allow a final turn. If there is enough time to complete the planning phase before EndX, the students must complete that turn. If there is no clear winner at this point, the side that reduces an opposing army to the lowest effectiveness rate will be declared the winner.*

Students will conduct the debrief guided discussion in the flightroom where they played the game.

*After each team inputs their plan, the Flight Commander will click on **Return To Map** and **Run Program**. Once the turn is complete, the toolbook will ask: "Would you like a printed status report?" Click on **Yes**.*

Give each team a copy of the report. This simulates receiving information via reconnaissance assets and battle damage assessment (BDA) from intelligence functions.

This concludes "one turn."

*If students ask to see additional menus (ie. **Airfield Status** or **Aircraft Status**) after each turn on the computer/monitor, the time spent interpreting that data is part of the mission planning time.*

Repeat the above instructions until time expires or one team wins. If time permits, students may play another game.}

{Instructor Note: *There may be an occasion when a team totally blunders the exercise early in the class and it is not worthwhile to continue. Should this occur, it's important to stop the exercise and make a learning experience out of the error(s) through a question and answer session.*

QUESTIONS TO USE IF THE FLIGHT COMMANDER ENDS THE GAME BECAUSE THE GAME IS GOING SO HORRIBLY WRONG, IT WOULD BE DETRIMENTAL TO CONTINUE:

QUESTIONS

ANTICIPATED RESPONSES (AR)

Lead Off Question (LOQ):

What was your primary objective?

- *To reduce one of their armies to 20%*

Follow-up Question (FUQ):

What caused your failure?

- *Fog of war.*
- *No strategy/no fully developed strategy.*
- *Didn't know the AFEX rules/ROE.*

FUQ:

What could you have done better?

- *Developed a better strategy.*
- *Studied the ROE more.*
- *Practice more.*
- *Flexibility is the key to airpower.*

Discuss any other details that are an essential part of the debrief.

If time permits and you can start a new game, do so. Ensure you give the students 15 minutes to mission plan for the new game. After this planning period, pick up at Turn #2 Input from the timeline on page P-4.}

*{**Instructor Note:** Use A1250-A-1, AFEX Flight Commander Checklist, to document observations made during game play. Use this info during the debrief.}*

c. Break 0:05 (2:40)

Take a five minute break. Both teams will return to this room for our final discussion.

d. MP II: Guided Discussion: 0:15 (2:55)

Now that we have gone through the exercise and you applied some of the concepts presented over the last few days, let's talk about some of the things that happened.

QUESTIONS

ANTICIPATED RESPONSES (AR)

Lead-Off-Question (LOQ):

What was the overall objective for each team?

- To reduce one of their armies to 20%
- Should not be simply “to win”

Follow-on-Question (FUQ):

What were some additional objectives you established to support your overall objective?

- Allow teams to discuss additional objectives used during the exercise.
- An example could be to achieve air superiority.

{Instructor Notes: You may write responses – or have a student write on the whiteboard to reference in later questions.}

FUQ:

Considering your objectives, what type of strategy/strategies did you develop?

- Allow students to discuss strategy used to achieve their overall and supporting objectives.

FUQ:

Did you modify your strategy from turn to turn?

- Allow students to discuss what happened when they modified their strategy.

INTERIM SUMMARY (Instructor Note):

1. Include student's ideas that support the main point.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

(TRANSITION) Now that we've discussed the objectives and strategies you developed, let's talk about some of the other aspects of the exercise.

LOQ:

What functions of air power were demonstrated today?

- Counterair
 - Offensive and Defensive Counterair
 - Sweep
 - SEAD
 - Escort
- Counterland
- Interdiction
- Strategic Attack
- Command and Control
- Air Refueling

FUQ:

What happened if you tried to send in a strike package without any support?

- Most likely it sustained heavy losses.
- As we discussed in force packaging, it takes different aircraft working as a team to accomplish the mission. We may need F-15Cs for protection from enemy aircraft and EA-6Bs to neutralize the surface threat.
- The synergy of different capabilities results in success.

LOQ:

According to your reading in AFDD 1, which tenets of aerospace power or principles of war were demonstrated in the exercise?

- Students should be able to recall the tenets of aerospace power and principles of war from their reading and apply them to what they have just experienced. (See list on next page)

{Instructor Note: You may use the whiteboard to write down student responses and have them provide examples from their game.}

TENETS OF AIR & SPACE POWER

Centralized Control & Decentralized Execution

Is Flexible and Versatile

Produces Synergistic Effects

Uniquely Suited to Persistent Operations

Must Achieve Concentration of Purpose

Operations Must Be Prioritized

Operations Must Be Balanced

PRINCIPLES OF WAR

Unity of Command

Objective

Offensive

Mass

Maneuver

Economy of Force

Security

Surprise

Simplicity

FUQ:

What happened if you tried to strike everything at once?

- Not enough assets to strike everything
- Spread yourself too thin
- Not enough support aircraft
 - Escort, sweep, SEAD, refueling
- Goes against the principle of mass and economy of force

FUQ:

Did you use your precision weapons wisely?

- Let the students discuss having to choose between precision and non-precision ammunition.
- Definitely not enough precision ammunition. Very real-world situation.

e. Conclusion: 0:05 (3:00)**1) //Summary//**

As you have seen, AFEX does a great job of tying together many of the concepts you've learned thus far. You were able to plan, execute, and then modify your plan as necessary to achieve your objectives.

2) //Remotivation//

Although AFEX is a small-scale air operation, it gets you thinking about force packaging from an operational level. If you made some risky moves during the exercise, some were probably profitable while others were costly. This is the advantage of an exercise--you can experiment without the high cost of failure the real world holds.

3) //Closure//

If you enjoyed AFEX you'll definitely enjoy the other ABC exercises yet to come. Use the experience and lessons you learned today to your advantage when you are developing your strategy for AIRGAP and BTII.

AFEX Flight Commander Checklist

1. Did the students start the game with a strategy?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____

2. Did the students start the game with their 1st game turn prepared?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____

3. Did they understand the objective and build a strategy to achieve it?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____

4. Did they stick to their strategy? Why/why not?

Team
1 _____

Team
2 _____

Team
3 _____

Team
4 _____

5. Did they understand how to effectively use the systems available?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____

6. Did they understand how to effectively/efficiently build packages?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____

7. Did they work together as a team?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____

8. If they received a nuclear weapon, did they understand the constraints in using it?

Team 1 _____ Team 2 _____ Team 3 _____ Team
4 _____